

**DIVISION OF FACILITIES DEVELOPMENT
MASTER SPECIFICATIONS/DESIGN GUIDELINES
DIVISION 27 – COMMUNICATIONS**

REVISION HISTORY

(3/01/2023 Updates)

The following is provided as an aid to designers and contractors in understanding changes to DFD Master Specifications and Design Guidelines. Dates are those included on the initial page of each section. Miscellaneous grammatical and spelling corrections are not listed.

**COMMUNICATIONS STRUCTURED CABLING SYSTEM
STANDARDS & DESIGN GUIDELINES**

Latest version: 11/07/16.

No updates to this document. Future update planned.

SECTION 27 05 33.41 - RACEWAY AND BOXES FOR AUDIO-VIDEO SYSTEMS

03/01/22

No updates to this document.

SECTION 27 05 53 –IDENTIFICATION FOR COMMUNICATIONS SYSTEMS

03/01/23

(Replaces version dated 03/21/22)

- Modified format of the Equipment Outlet identifier to correct Patch Panel designation.
- Removed various duplicate entries.
- Corrected various typos.

SECTION 27 08 00 - COMMISSIONING OF COMMUNICATIONS

03/01/23

(Replaces version dated 3/21/22)

- Updated Editing Instructions re: SCOPE content.
- Updated content of Article COMMISSIONING WHEN NO FORMS ARE AVAILABLE and related Editing Instructions.

SECTION 27 08 00.41 - AV SYSTEMS COMMISSIONING

03/01/23

(Replaces version dated 6/01/22)

- Added CV-27 41 00.05 - Audio/Video Systems. Added reference to the CV in SCOPE.

SECTION 27 10 00 - STRUCTURED CABLING

03/01/23

(Replaces version dated 03/21/22)

- In Article REFERENCES, added reference to ANSI/TIA-1152 – Requirements for Field Test Instruments and Measurements for Balanced Twisted-Pair (Cabling).
- Deleted content re: Category 5e cabling.
- Edited Article SCHEDULE to direct contractor to confer with agency and DFD re: Interim Testing requirements prior to construction.
- Clarified that Category 6 is default horizontal cable performance for workstation links.
- Edited Part 2 HORIZONTAL PERMANENT LINK / Project Requirements to replace “Security Device Location” with separate “Camera” and “Card Access Controller” entries. Added distinction for Indoor and Outdoor camera locations.
- Modified content re: partially populated Modular Patch Panels.
- Clarified Editing Instruction re: use of Angled Physical Contact (APC) optical connectors.
- Modified Part 3 “Grounding” content for fiber optic cable.
- Added Editing Note re: use of Flexible Textile Innerduct.

- Edited Article TESTING AND ACCEPTANCE to update:
 - Results format requirements.
 - Horizontal 4-pair Copper Cabling test requirements to include DC Loop Resistance and ANSI/TIA-1152 Optional++ Tests.
 - “Special [Testing] Considerations” to reference “Modular Plug Terminated Link (MPTL)” for where cabling is terminated in a Modular Plug at the device location. Replaces general description of methods.
 - Fiber Optic Cable test requirements to clarify that OTDR is used to verify “Link Integrity and component losses” and, where an OTDR is used to measure attenuation, use of the bi-directional test (average) is acceptable.
- Miscellaneous formatting, terminology and grammatical changes.

SECTION 27 11 00 - COMMUNICATIONS EQUIPMENT ROOM FITTINGS

03/01/23

(Replaces version dated 3/32/22)

- Revised Article EQUIPMENT RACK to include “General”, “2-post” and “4-post” content.
- Clarified requirement for cabinet sides where adjacent to another cabinet.

SECTION 27 11 13 - COMMUNICATIONS PROTECTION

03/01/21

No updates to this document.

SECTION 27 16 19 - COMMUNICATIONS PATCH CORDS, WORK AREA CORDS, AND CROSS-CONNECT WIRE

03/01/23

(Replaces version dated 3/01/21)

- Modified Editing Instructions to clarify basis for cord counts.

SECTION 27 41 00 - AUDIO-VIDEO SYSTEMS

03/01/23

(Replaces version dated 03/21/22)

- Modified Editing Instructions to clarify required content and format of Class 1 Notice.
- In AV SYSTEM DESIGN / Testing, added reference to specification Section 27 08 00.41 – AV SYSTEMS COMMISSIONING.
- In QUALITY ASSURANCE / Certifications, clarified “staff credentials” requirements and added content re: where project scope includes products requiring a manufacturer-certified installer.
- Modified Article EQUIPMENT CHANGES AND SUBSTITUTIONS.
- In Article CABLING, replaced references to “DTP” to read “Twisted Pair”. Added direction re: HDBaseT.
- In Article AV EQUIPMENT, expanded Editing Instructions to clarify “Sole Source” and “Basis-of-Design” designations and implications.
- Added direction for conditions where: GPC scope includes Video Projection Screens.
- In PART 3 Article EQUIPMENT RACKS AND CABINETS, removed requirement for ground to be “Isolated”.
- In PART 3 Article NETWORK, modified Editing Instructions to consider where network switches are specified in PART 2.
- In PART 3 Article AV SYSTEMS CLEAN POWER, added Editing Instruction discouraging this feature.
- In PART 3 Article TECHNICAL REQUIREMENTS, Edited “Projection Screens” content to direct contractor to “self-perform or coordinate with Division 11 installer” re: screen installation.
- Miscellaneous formatting, terminology and grammatical changes.

SECTION 27 41 34 - WIDEBAND VIDEO DISTRIBUTION SYSTEM

03/01/21

No updates to this document.

SECTION 27 51 26 – ASSISTIVE LISTENING SYSTEMS

03/01/21

No technical content changes.

SECTION 27 51 29 – TWO-WAY EMERGENCY COMMUNICATION SYSTEMS

03/01/23

(Replaces version dated 03/01/21)

- Edited Notes to A/E to clarify system requirements.
- In Article REFERENCES, Added “Delivered Audio Quality (DAQ) Definitions”.
- In PART 2 Article TWO-WAY EMERGENCY COMMUNICATION SYSTEMS:
 - Edited “General” to clarify monitoring requirements.
 - Edited “Master Control Station” to clarify Technical options; clarified Basis of Design products as “IP based”.
 - Added “Power Supplies” content including Integral Battery Backup requirements.
 - Added “Boxes” content.
- Added PART 2 Article CABLING including “General”, “Communications Cable” and “Pathway Survivability”.
- Edited PART 3 Article INSTALLATION to clarify Cabling (prev. “Wiring”) requirements.
- In PART 3 Article ACCEPTANCE TESTING:
 - Added “General” direction re: Test Plan and AHJ involvement.
 - Expanded “System Testing” requirements to include pre-recorded message functional test.
 - Added “Call Quality” content.
- Miscellaneous formatting, terminology and grammatical changes.

*** END OF LIST ***